

ABSTRACT OF THE DISCLOSURE

Methods and system for efficient collection and storage of experimental data.

These methods and system allow experimental data from high-throughput, feature-rich
5 data collection systems, such as high-throughput cell data collection systems to be
efficiently collected, stored, managed and displayed. The methods and system can be
used, for example, for storing managing and displaying cell image data and cell feature
data collected from microplates including multiple wells and a variety of bio-chips in
which an experimental compound has been applied to a population of cells. The methods
10 and system provide a flexible and scalable repository of experimental data including
multiple databases at multiple locations including pass-through databases that can be
easily managed and allows cell data to be analyzed, manipulated and archived. The
methods and system may improve the identification, selection, validation and screening
of new drug compounds that have been applied to populations of cells. The methods and
15 system can also be used to provide new bioinformatic techniques to manipulate
experimental data including multiple digital photographic images.